Clarion

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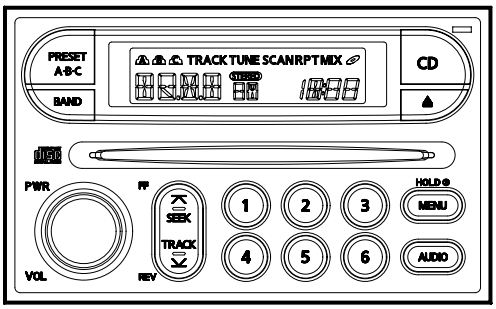
Service Manual



NISSAN Automobile Genuine
AM/FM Radio CD Player

Model PP-2449H-A
(Genuine No. 28185 8Z500)
(ID No. CY150)

Model PP-2449H-B
(Genuine No. 28185 8Z400)
(ID No. CY140)

Model PP-2449H-C
(Genuine No. 28185 7Z800)
(ID No. CY130)

■ SPECIFICATIONS

Radio section

Tuning system:	PLL frequency synthesizer system
Receive range:	AM 530kHz to 1,710kHz
	FM 87.9MHz to 107.9MHz
Intermediate frequency:	
	AM 450kHz
	FM 10.7MHz
Quieting sensitivity:	
	AM Less than 32dBμ(at 20dB S/N)
	FM Less than 11dBμ(at 30dB S/N)
Separation:	FM 22+5/−7dB(1kHz)
Auto tuning stop sensitivity:	
	AM 32±6dBμ
	FM 25±6dBμ

CD section

Disc:	12cm,8cm Disc
Separation:	More than 50dB
S/N ratio:	More than 74dB

AUX section

Gain:(PP-2449H-A)	FRONT 19±3dB
	REAR 19±3dB
(PP-2449H-B)	FRONT 16±3dB
	REAR 19±3dB
(PP-2449H-C)	FRONT 18±3dB
	REAR 17±3dB
	(AUX input 1kHz,245mV,VOL max.)

General

Load impedance:	2Ω
Power output:	25W×4(H-A/H-C)
	25W×2(H-B)
Power supply voltage:	
	DC13.2V(10.8V to 15.6V)
	Negative ground
Back-up consumption:	
	Less than 3mA
Dimensions(mm):	180(W)×108(H)×160(D)
Weight:	Approx. 1.9kg

※ Specifications and design are subject to change without notice for further improvement.

■ COMPONENTS

PP-2449H-A,H-B,H-C

Main unit	–––––	1

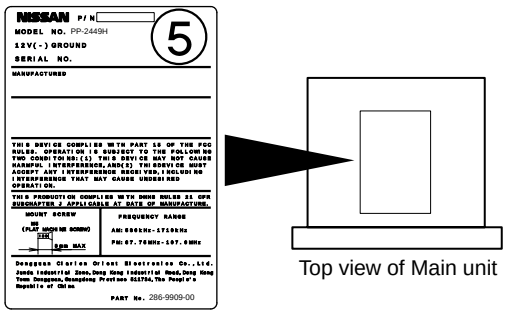
■ NOTE

We cannot supply PWB with component parts in principle. When a circuit on PWB has failure, please repair it by component parts base. Parts which are not mentioned in service manual are not supplied.

■ CAUTIONS

Use of controls,adjustment,or performance of procedures other than those specified herein,may result in hazardous radiation exposure.

The compact disc player should not be adjusted or repaired by anyone except properly qualified service personnel.



Top view of Main unit

■ DIFFERENCE FEATURE LIST

	EQUALIZER	FADER
PP-2449H-A	○	○
PP-2449H-B	○	–
PP-2449H-C	○	○

■ To engineers in charge of repair or inspection of our products.

Before repair or inspection, make sure to follow the instructions so that customers and Engineers in charge of repair or inspection can avoid suffering any risk or injury.

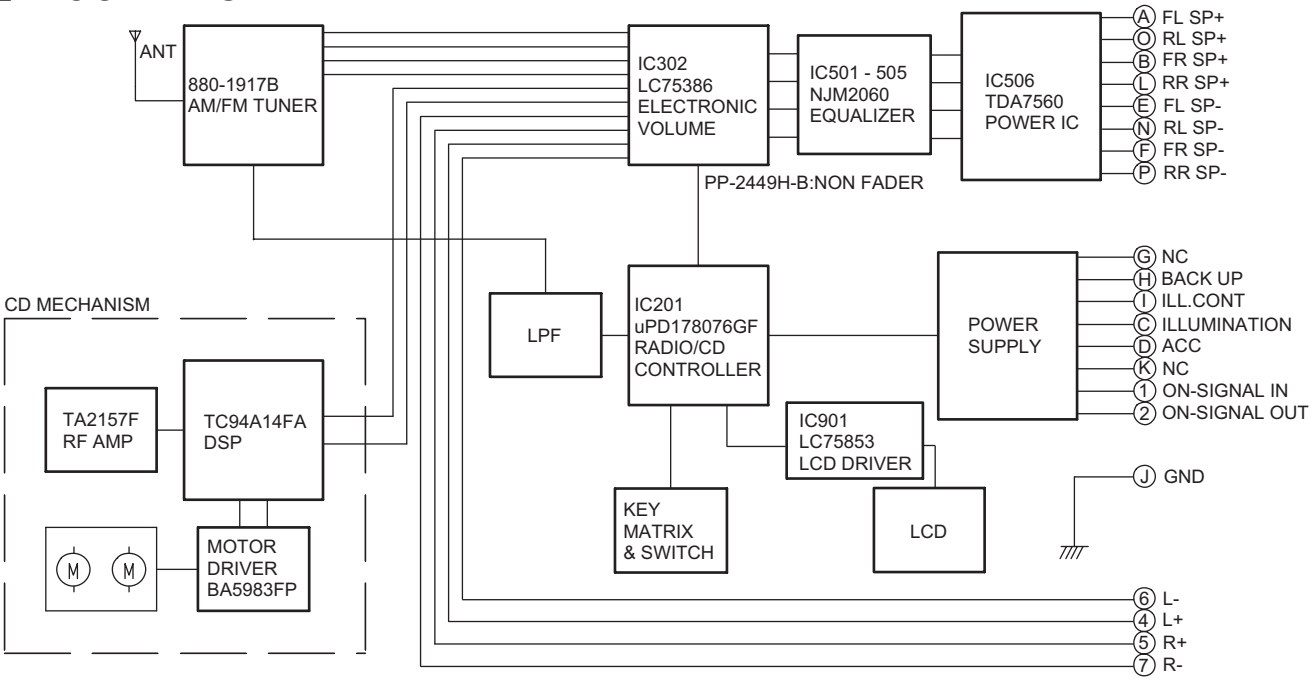
1. Use specified parts.
   The system uses parts with special safety features against fire and voltage. Use only parts with equivalent characteristics when replacing them.
   The use of unspecified parts shall be regarded as remodeling for which we shall not be liable. The onus of product liability (PL) shall not be our responsibility in cases where an accident or failure is as a result of unspecified parts being used.
2. Place the parts and wiring back in their original positions after replacement or re-wiring.
   For proper circuit construction, use of insulation tubes, bonding, gaps to PWB, etc, is involved. The wiring connection and routing to the PWB are specially planned using clamps to keep away from heated and high voltage parts. Ensure that they are placed back in their original positions after repair or inspection.
   If extended damage is caused due to negligence during repair, the legal responsibility shall be with the repairing company.
3. Check for safety after repair.
   Check that the screws, parts and wires are put back securely in their original position after repair. Ensure for safety reasons there is no possibility of secondary ploblems around the repaired spots.
   If extended damage is caused due to negligence of repair, the legal responsibility shall be with the repairing company.
4. Caution in removal and making wiring connection to the parts for the automobile.
   Disconnect the battery terminal after turning the ignition key off. If wrong wiring connections are made with the battery connected, a short circuit and/or fire may occur.
   If extensive damage is caused due to negligence of repair, the legal responsibility shall be with the repairing company.
5. Cautions regarding chips.
   Do not reuse removed chips even when no abnormality is observed in their appearance. Always replace them with new ones. (The chip parts include resistors, capacitors, diodes, transistors, etc). The negative pole of tantalum capacitors is highly susceptible to heat, so use special care when replacing them and check the operation afterwards.
6. Cautions in handling flexible PWB
   Before working with a soldering iron, make sure that the iron tip temperature is around 270℃. Take care not to apply the iron tip repeatedly(more than three times)to the same patterns. Also take care not to apply the tip with force.
7. Turn the unit OFF during disassembly and parts replacement. Recheck all work before you apply power to the unit.
8. Cautions in checking that the optical pickup lights up.
   The laser is focused on the disc reflection surface through the lens of the optical pickup. When checking that the laser optical diode lights up, keep your eyes more than 30cms away from the lens. Prolonged viewing of the laser within 30cms may damage your eyesight.
9. Cautions in handling the optical pickup
   The laser diode of the optical pickup can be damaged by electrostatic charge caused by your clothes and body. Make sure to avoid electrostatic charges on your clothes or body, or discharge static electricity before handling the optical pickup.

9-1. Laser diode
   The laser diode terminals are shorted for transportation in order to prevent electrostatic damage. After replacement, open the shorted circuit. When removing the pickup from the mechanism, short the terminals by soldering them to prevent this damage.

9-2. Actuator
   The actuator has a powerful magnetic circuit. If a magnetic material is put close to it. Its characteristics will change. Ensure that no foreign substances enter through the ventilation slots in the cover.

9-3. Cleaning the lens
   Dust on the optical lens affects performance. To clean the lens, apply a small amount of isopropyl alcohol to lens paper and wipe the lens gently.

■BLOCK DIAGRAM



■ADJUSTMENT

Item	Procedure	Measuring instrument
Noise convergence	1. Input a 98.1MHz/55dB(1kHz,30% MOD)signal.(0dB=1.4V) 2. Adjust the output to −18±3dB by VR102 when the SSG output is set −20dBμ.	SSG Milli-volt meter
Clock accuracy	1. Turn off and on the ACC switch,while holding CD EJECT button and POWER button.Repeat it twice slowly. 2. Set a universal timer to TP201,adjust TC201 so that a reading of the meter is 0±0.1 sec/day.	Universal timer

■EXPLANATION OF IC

052-1173-00 uPD178076GF-541-3BA Radio & CD Controller

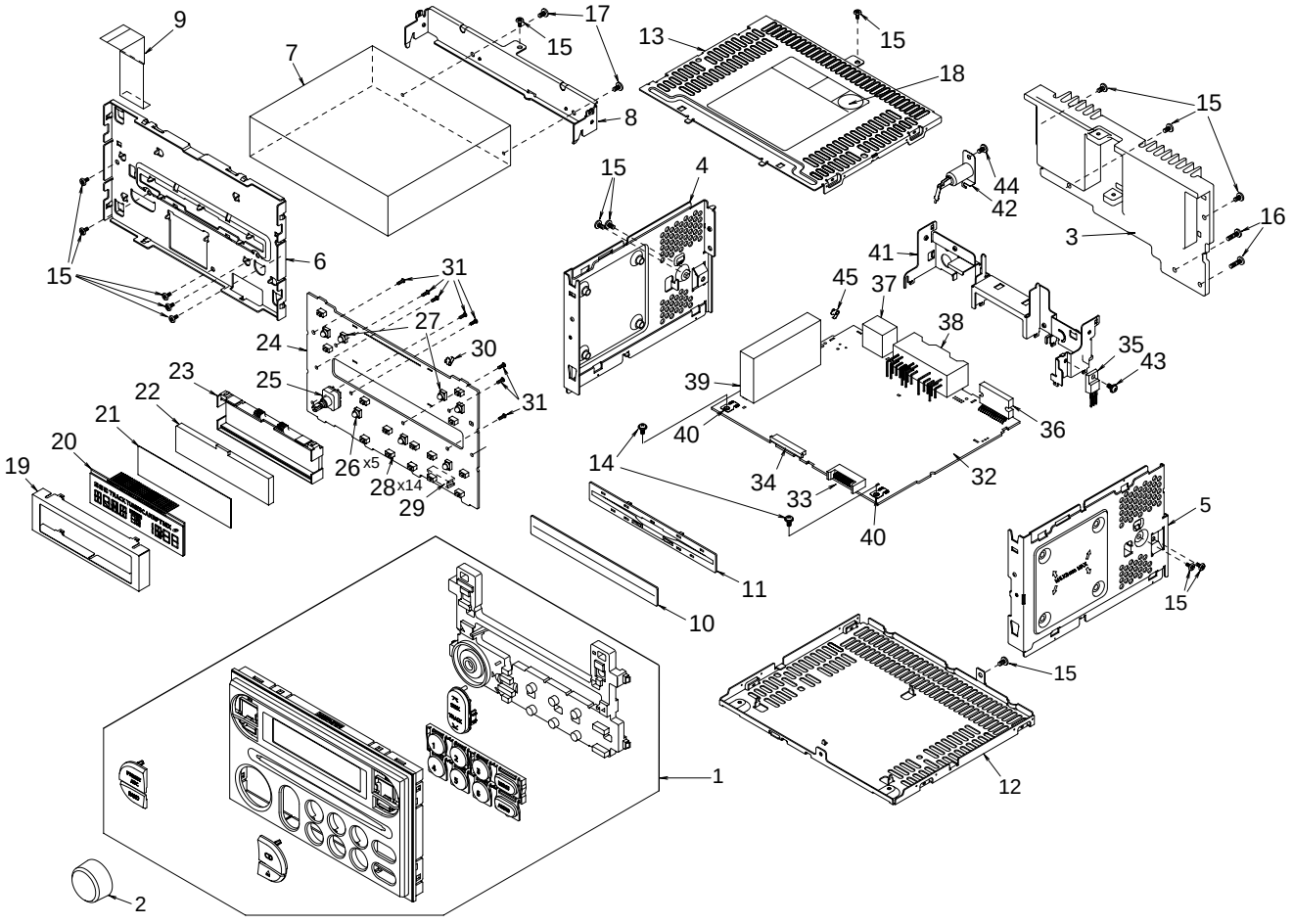
1.Terminal Description

pin 1: EJECT SW_ : IN : The eject key signal input.
pin 2: NU : - : Not in use.
pin 3: NU : - : Not in use.
pin 4: VOL DATA : O : Serial data output to the electric volume IC.
pin 5: VOL CLOCK : O : Serial data clock output to the electric volume IC.
pin 6: VOL CE : O : Chip enable signal output to the volume IC.
pin 7: NU : - : Not in use.
pin 8: LCD DI_ : IN : Serial data input from the LCD driver.
pin 9: LCD DO : O : Serial data output to the LCD driver.
pin 10: LCD CLK : O : Serial data clock output to LCD driver.
pin 11: LCD CE : O : Chip enable signal output to the LCD driver.
pin 12: NU : - : Not in use.
pin 13: POWER SW_ : IN : Power switch pulse input.
pin 14: VOL 1 : IN : Volume control pulse input from the rotary switch.
pin 15: VOL 2 : IN : Volume control pulse input from the rotary switch.
pin 16: ILL_ : IN : Illumination ON signal input.
pin 17: NU : - : Not in use.
pin 18: NU : - : Not in use.
pin 19: NU : - : Not in use.
pin 20: NU : - : Not in use.
pin 21: NU : - : Not in use.
pin 22: NU : - : Not in use.
pin 23: NU : - : Not in use.
pin 24: NU : - : Not in use.
pin 25: NU : - : Not in use.
pin 26: NU : - : Not in use.
pin 27: A VDD : - : Positive supply voltage for the Analog section.
pin 28: NU : - : Not in use.
pin 29: NU : - : Not in use.
pin 30: NU : - : Not in use.
pin 31: NU : - : Not in use.
pin 32: A VSS : - : Analog ground.
pin 33: REG CPU : IN : Capacitor connection terminal to suppress the ripple.
pin 34: VDD 0 : - : Positive supply voltage.
pin 35: REG OSC : IN : Capacitor connection terminal to suppress the ripple.
pin 36: X 2 : - : Crystal connection.
pin 37: X 1 : - : Crystal connection.
pin 38: GND 0 : - : Ground.
pin 39: NU : - : Not in use.
pin 40: GND 2 : - : Ground.
pin 41: AM IF : IN : Input terminal of the internal universal counter for AM IF.
pin 42: FM IF : IN : Input terminal of the internal universal counter for FM IF.
pin 43: VDD PLL : - : Positive supply voltage for the PLL.
pin 44: FM OSC : IN : Input terminal of the internal counter for FM OSC(Local Oscillation).
pin 45: AM OSC : IN : Input terminal of the internal counter for AM OSC(Local Oscillation).
pin 46: GND PLL : - : Ground for the PLL.
pin 47: Voltage Tune : O : PLL error output.
pin 48: NU : - : Not in use.
pin 49: IC : IN : Not in use.
pin 50: RESET_ : IN : Reset signal input.
pin 51: SP INIT : IN : 4SP = "L" , 2SP = "H".
pin 52: NU : - : Not in use.
pin 53: ST_/TWEET_ : I/O : Outputs "L" at AM 900kHz receiving. Inputs "L" at FM stereo receiving.
pin 54: CLK INT : IN : Without the clock display = "H".
pin 55: AUX ON_ : IN : AUX ON signal input.
pin 56: TEST : IN : Test enable signal input.
pin 57: LCD ON_ : O : LCD back light ON signal output.

pin 58: NU : - : Not in use.
pin 59: BEEP : O : Beep out.
pin 60: NU : - : Not in use.
pin 61: NU : - : Not in use.
pin 62: CD RESET_ : O : Reset signal output to the CD mechanism controller.
pin 63: NU : - : Not in use.
pin 64: AF MUTE_ : O : Audio signal mute pulse output.
pin 65: NU : - : Not in use.
pin 66: FM ON_ : O : FM ON flag output.
pin 67: AM ON_ : O : AM ON flag output.
pin 68: CD ON : O : CD ON flag output.
pin 69: NU : - : Not in use.
pin 70: NU : - : Not in use.
pin 71: NU : - : Not in use.
pin 72: RF MUTE : O : RF mute signal output.
pin 73: DX_/LO : O : DX = "L" , Local = "H".
pin 74: SYS ON : O : System-ON signal output.
pin 75: AMP ON : O : Audio power amplifier ON signal output.
pin 76: COMBI ON : O : COMBI ON pulse output.
pin 77: NU : - : Not in use.
pin 78: ACC IN_ : IN : ACC ON signal input
pin 79: RADIO ON : O : Radio ON flag output.
pin 80: NU : - : Not in use.
pin 81: SBSY : IN : CD IC Sub Q data request signal input.
pin 82: GND 1 : - : Ground.
pin 83: CD CONNECT_ : IN : "L" is outputted when CD-FPC connection trouble is detected.
pin 84: BUS 0 : I/O: CD IC Data input / output.
pin 85: BUS 1 : I/O: CD IC Data input / output.
pin 86: BUS 2 : I/O: CD IC Data input / output.
pin 87: BUS 3 : I/O: CD IC Data input / output.
pin 88: BUC CLOCK : O : CD IC clock pulse output.
pin 89: CCE : O : Chip enable signal output to CD IC.
pin 90: GS1 TEST : O : Test data output.
pin 91: S STOP : IN : "L"= In side limit.
pin 92: CHU SW : IN : CD disc chucking signal input.
pin 93: TR B : IN : Photo sensor signal input from the CD mechanism.
pin 94: TR A : IN : Photo sensor signal input from the CD mechanism.
pin 95: LOAD CONT : IN : Loading = "H", Eject = "L".
pin 96: LOAD MUTE : O : Loading muting control output.
pin 97: NU : - : Not in use.
pin 98: NU : - : Not in use.
pin 99: VDD PORT : - : Positive supply voltage for the ports.
pin100: GND PORT : - : Ground for the ports.

■EXPLODED VIEW • PARTS LIST

Main section



Note)Some parts depend on each model.The model name is specified in the description.

NO.	PART NO.	DESCRIPTION	Q'TY
1	940-7962-80 940-7962-81 940-7962-82	ESCUTCHEON ASSY(H-A) ESCUTCHEON ASSY(H-B) ESCUTCHEON ASSY(H-C)	1
2	380-5530-00	KNOB	1
3	313-1827-10	HEAT SINK	1
4	305-0313-00	SIDE PLATE	1
5	305-0314-00	SIDE PLATE	1

NO.	PART NO.	DESCRIPTION	Q'TY
6	331-3256-00	ES PLATE	1
7	929-0220-81	CD MECHANISM	1
8	331-3254-10	MECHANISM BRKT	1
9	816-2549-00	FLAT WIRE	1
10	346-0140-00	LEATHER SHEET	1
11	335-6647-00	DISC GUIDE	1

NO.	PART NO.	DESCRIPTION	Q'TY
12	311-1833-10	LOWER CASE	1
13	310-1739-10	UPPER CASE	1
14	716-0878-00	IT SCREW	2
15	714-2606-81	MACHINE SCREW(M2.6×6)	15
16	714-2612-81	MACHINE SCREW(M2.6×12)	2
17	714-2603-81	MACHINE SCREW(M2.6×3)	2
18	286-9909-00 286-9909-01 286-9909-02	SETPLATE(H-A) SETPLATE(H-B) SETPLATE(H-C)	1
19	331-3255-00	LCD COVER	1
20	379-1219-30	INDICATOR(LCD)	1
21	335-6668-00	COLOR FILTER	1
22	335-6645-01	LCD REFLECTOR	1
23	335-6646-00	ILLUMI HOLDER	1
24	039-1985-00	SWITCH PWB (WITHOUT COMPONENT)	1
25	016-0013-03	ROTARY ENCODER	1
26	017-0433-52	PILOTLAMP(14V40mA)	5
27	017-0447-59	PILOTLAMP(8V105mA)	2
28	013-6305-50	TACT SWITCH	14

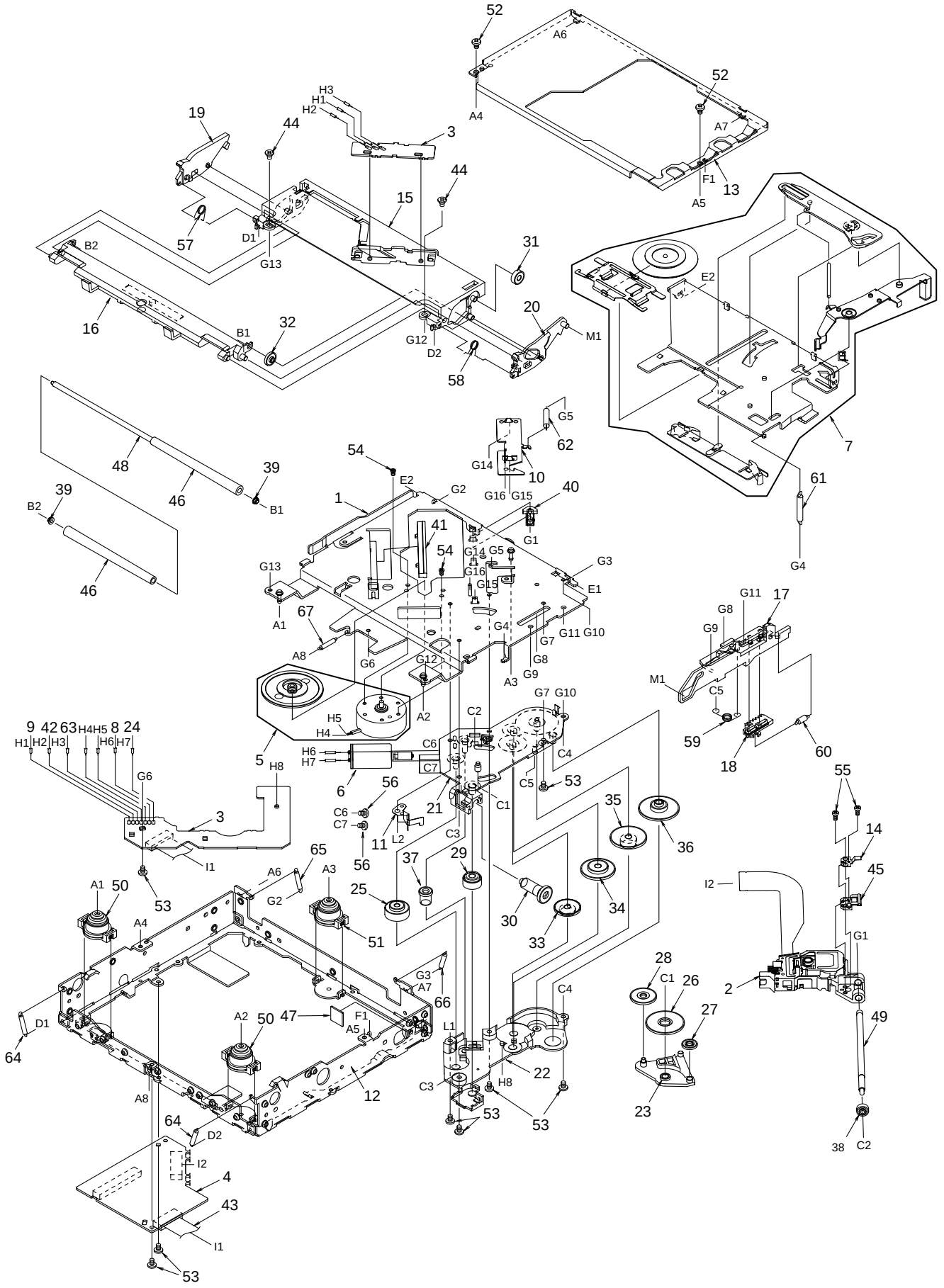
NO.	PART NO.	DESCRIPTION	Q'TY
29	074-1151-14	OUTLET SOCKET(14P)	1
30	073-0774-00	TERMINAL	1
31	702-2006-81	TAP SCREW(2×6)	8
32	039-1984-02	MAIN PWB (WITHOUT COMPONENT)	1
33	076-0540-14	PLUG(14P)	1
34	074-1191-26	OUTLET SOCKET(26P)	1
35	103-2012-00	TRANSISTOR(2SD2012)	1
36	051-2037-00	POWER IC	1
37	074-0850-08	OUTLET SOCKET(DIN8P)	1
38	074-1068-11	OUTLET SOCKET(10P+6P)	1
39	880-1917B	AM/FM TUNER	1
40	073-0762-90	TERMINAL	2
41	307-0683-05	REAR PLATE	1
42	092-0702-00	ANT-RECEPTACLE	1
43	716-0878-00	IT SCREW	1
44	714-2606-81	MACHINE SCREW(M2.6×6)	1
45	073-0774-00	TERMINAL	1

CD mechanism section 929-0220-81

Exploded view on next page.

NO.	PART NO.	DESCRIPTION	Q'TY
1	966-0595-24	DRIVE PLATE ASSY	1
2	969-0060-30	PICK UP UNIT	1
3	039-1944-21	LED PWB (WITHOUT COMPONENT)	1
4	039-1945-20	CD PWB (WITHOUT COMPONENT)	1
5	SMA-182-100	MOTOR ASSY(SPINDLE)	1
6	SMA-183-100	MOTOR ASSY(SLED)	1
7	HBT-516-100	CLAMPER SUB ASSY	1
8	803-4906-60	VINYL COAT WIRE(ORG)	1
9	816-2566-50	LEAD WIRE(YEL)	1
10	620-1025-21	ID-LOCK PLATE	1
11	620-1026-21	SPRING PLATE	1
12	620-1027-24	LOWER CHASSIS	1
13	620-1028-21	UPPER CHASSIS	1
14	620-1029-21	SH-SPRING	1
15	621-0598-25	UPPER GUIDE	1
16	621-0599-25	ROLLER GUIDE	1
17	621-0600-23	SHIFT LEVER	1
18	621-0601-21	RACK	1
19	621-0602-22	LOCK ARM L	1
20	621-0603-23	LOCK ARM R	1
21	621-0604-21	GEAR BASE	1
22	621-0605-21	GEAR COVER	1
23	621-0606-21	IDLE CASE	1
24	805-4906-60	VINYL COAT WIRE(GRN)	1
25	621-0608-21	SECOND GEAR	1
26	621-0609-20	BASE GEAR	1
27	621-0610-20	IDLE GEAR A	1
28	621-0611-20	IDLE GEAR B	1
29	621-0612-21	ROLLER GEAR A	1

NO.	PART NO.	DESCRIPTION	Q'TY
30	621-0613-20	ROLLER GEAR B	1
31	621-0614-20	ROLLER GEAR C	1
32	621-0615-21	ROLLER GEAR D	1
33	621-0616-20	POWER GEAR A	1
34	621-0617-20	POWER GEAR B	1
35	621-0618-20	POWER GEAR C	1
36	621-0619-20	POWER GEAR D	1
37	621-0620-20	THREAD GEAR A	1
38	621-0621-20	THREAD GEAR B	1
39	621-0622-20	ROLLER SLEEVE	2
40	621-0623-21	LS-HOLDER	1
41	621-0624-20	GUIDE RAIL	1
42	816-2566-52	LEAD WIRE(PUR)	1
43	816-2542-01	FLAT WIRE(10P)	1
44	716-3473-00	SCREW	2
45	621-0628-21	SH-BASE	1
46	621-0629-20	LOADING ROLLER	2
47	345-8704-20	CUSHION RUBBER	1
48	622-1571-20	ROLLER SHAFT	1
49	624-0018-01	LEAD SCREW	1
50	629-0081-20	DAMPER F	2
51	629-0082-20	DAMPER R	1
52	714-2003-81	MACHINE SCREW	2
53	716-1507-00	SCREW	8
54	716-1733-00	SCREW	2
55	716-3469-00	SPECIAL SCREW	2
56	716-3446-00	SCREW	2
57	750-3465-21	ROLLER SPRING L	1
58	750-3466-20	ROLLER SPRING R	1
59	750-3467-20	SHIFT SPRING	1



NO.	PART NO.	DESCRIPTION	Q'TY
60	750-3468-20	RACK SPRING	1
61	750-3469-20	CLAMPER SPRING	1
62	750-3470-20	ID-LOCK SPRING	1
63	816-2566-51	LEAD WIRE(BLU)	1

NO.	PART NO.	DESCRIPTION	Q'TY
64	750-3472-21	DR-SPRING F	2
65	750-3473-20	DR-SPRING RA	1
66	750-3474-20	DR-SPRING RB	1
67	750-3475-21	DR-SPRING C	1

■ELECTRICAL PARTS LIST

Note) Several different parts of the same reference number are alternative parts.One of those parts is used in the set.
Some parts depend on each model.The model name is specified in the description.PP-2449H-A(H-A),PP-2449H-B(H-B),PP-2449H-C(H-C)

Main PWB(B1) section

REF No.	PART No.	DESCRIPTION
BL101	880-1917B	AM/FM TUNER
C104	166-1201-50	12pFCH
C114	166-1007-50	10pFCH
C116	168-1045-56	0.1μF
C117	178-2232-78	0.022μF
C118	168-1022-55	1000pF
C119	182-1073-29	10V100μF
C120	042-0458-93	50V2.2μF LN
C122	182-1073-29	10V100μF
C123	182-1073-29	10V100μF
C125	182-4763-39	16V47μF
C126	183-1056-68	50V1μF
C127	168-1532-55	0.015μF
C128	168-3332-78	0.033μF
C129	168-3332-78	0.033μF
C203	166-1011-50	100pFCH
C204	166-1011-50	100pFCH
C205	166-1011-50	100pFCH
C206	166-1011-50	100pFCH
C207	168-1045-56	0.1μF
C208	168-1045-56	0.1μF
C212	166-8097-50	8pFCH
C213	182-4763-19	6.3V47μF
C214	168-1045-56	0.1μF
C215	182-4763-19	6.3V47μF
C301	168-4722-55	4700pF
C303	184-2273-28	10V220μF
C306	184-1083-29	10V1000μF
C307	182-1063-39	16V10μF
C311	183-1063-37	16V10μF
C312	183-1063-37	16V10μF
C313	183-1063-37	16V10μF
C314	183-1063-37	16V10μF
C315	182-2263-19	6.3V22μF
C316	182-1053-69	50V1μF
C318	183-1043-69	50V0.1μF
C319	183-1043-69	50V0.1μF
C321	182-1053-69	50V1μF
C322	178-1042-78	0.1μF
C323	178-1042-78	0.1μF
C325	182-1053-69	50V1μF
C326	182-1053-69	50V1μF
C328	182-1063-39	16V10μF
C329	182-1063-39	16V10μF
C330	182-1063-39	16V10μF
C331	182-1063-39	16V10μF
C332	182-1053-69	50V1μF
C333	182-1053-69	50V1μF
C334	178-1242-78	0.12μF
C335	178-1242-78	0.12μF
C336	168-1532-55	0.015μF
C337	168-1532-55	0.015μF
C338	168-3312-55	330pF
C339	168-3312-55	330pF
C340	182-1063-39	16V10μF
C341	182-1063-39	16V10μF
C342	168-3332-78	0;033μF
C343	182-1063-39	16V10μF
C344	182-1063-39	16V10μF
C345	182-1063-39	16V10μF
C346	182-1063-39	16V10μF
C502	168-4712-55	470pF(H-B)
C504	168-4712-55	470pF(H-A,H-B)
C505	166-2201-50	22pFCH
C506	166-2201-50	22pFCH
C507	168-1522-55	1500pF(H-A)
C508	166-2201-50	22pFCH
C509	166-2201-50	22pFCH
C510	168-1822-55	1800pF(H-C)
C511	168-1822-55	1800pF(H-C)
C512	166-2201-50	22pFCH
C513	166-2201-50	22pFCH
C514	168-1522-55	1500pF(H-A)
C515	166-2201-50	22pFCH
C516	166-2201-50	22pFCH
C529	178-6822-78	6800pF(H-C)
C530	178-8222-78	8200pF(H-A)
C530	178-6822-78	6800pF(H-C)
C531	178-1232-78	0.012μF(H-B)
C531	178-6832-78	0.068μF(H-C)
C532	178-1832-78	0.018μF(H-B)
C532	178-6832-78	0.068μF(H-C)
C533	178-5632-78	0.056μF(H-C)
C534	178-4732-78	0.047μF(H-A)
C534	178-3332-78	0.033μF(H-C)
C535	178-3332-78	0.033μF(H-B)
C535	178-5632-78	0.056μF(H-C)
C536	178-2732-78	0.027μF(H-B)
C536	178-5632-78	0.056μF(H-C)
C537	166-2201-50	22pFCH(H-A,H-C)
C538	166-2201-50	22pFCH(H-A,H-C)
C539	166-2201-50	22pFCH
C540	166-2201-50	22pFCH
C541	166-2201-50	22pFCH(H-A,H-C)
C542	166-2201-50	22pFCH(H-A,H-C)
C543	166-2201-50	22pFCH
C544	166-2201-50	22pFCH
C545	178-1542-78	0.15μF(H-A)
C545	178-2242-78	0.22μF(H-C)
C546	178-2742-78	0.27μF(H-A,H-C)
C547	178-2242-78	0.22μF(H-A)
C547	178-1542-78	0.15μF(H-B)
C547	178-1242-78	0.12μF(H-C)
C548	178-2242-78	0.22μF(H-A)
C548	178-3342-78	0.33μF(H-B)
C548	178-1242-78	0.12μF(H-C)
C549	178-4732-78	0.047μF(H-A)
C549	178-3932-78	0.039μF(H-C)
C550	178-2242-78	0.22μF(H-A)
C550	178-3932-78	0.039μF(H-C)
C551	178-2242-78	0.22μF(H-A)
C551	178-5632-78	0.056μF(H-B)
C551	178-3342-78	0.33μF(H-C)
C552	178-2242-78	0.22μF(H-A)
C552	178-1242-78	0.12μF(H-B)
C552	178-3342-78	0.33μF(H-C)
C553	178-1542-78	0.15μF(H-A)
C553	117-0000-05	1/10W 0Ω(H-B,H-C)
C554	178-1542-78	0.15μF(H-A)
C554	117-0000-05	1/10W 0Ω(H-B,H-C)
C555	117-0000-05	1/10W 0Ω(H-A)
C555	178-1242-78	0.12μF(H-B)
C555	178-5632-78	0.056μF(H-C)
C556	117-0000-05	1/10W 0Ω(H-A)
C556	178-1242-78	0.12μF(H-B)
C556	178-5632-78	0.056μF(H-C)
C557	178-1542-78	0.15μF(H-A)
C557	117-0000-05	1/10W 0Ω(H-B,H-C)
C558	117-0000-05	1/10W 0Ω(H-A)
C558	178-1242-78	0.12μF(H-B)
C558	178-5632-78	0.056μF(H-C)
C559	166-2201-50	22pFCH
C560	166-2201-50	22pFCH
C561	166-2201-50	22pFCH
C562	166-2201-50	22pFCH
C563	178-1542-78	0.15μF(H-A)
C563	117-0000-05	1/10W 0Ω(H-B,H-C)
C564	117-0000-05	1/10W 0Ω(H-A)
C564	178-1242-78	0.12μF(H-B)
C564	178-5632-78	0.056μF(H-C)
C568	178-2242-78	0.22μF(H-A)
C568	178-1222-78	1200pF(H-B)
C568	178-3332-78	0.033μF(H-C)
C569	178-2242-78	0.22μF(H-A)
C569	178-1222-78	1200pF(H-B)
C569	178-3332-78	0.033μF(H-C)
C570	178-3332-78	0.033μF(H-A)
C570	178-2242-78	0.22μF(H-B,H-C)
C571	178-3332-78	0.033μF(H-A)
C571	178-2242-78	0.22μF(H-B,H-C)
C572	168-1022-55	1000pF
C573	182-1053-69	50V1μF
C574	182-2253-69	50V2.2μF
C576	168-1045-56	0.1μF
C701	172-1041-15	0.1μF
C702	042-0447-00	16V2200μF
C703	168-2222-55	2200pF
C704	168-2222-55	2200pF
C705	168-2222-55	2200pF
C706	168-2222-55	2200pF
C707	168-2222-55	2200pF
C708	168-2222-55	2200pF
C709	168-2222-55	2200pF
C710	168-2222-55	2200pF
C711	168-2222-55	2200pF
C712	172-1041-15	0.1μF
C713	182-1063-39	16V10μF
C714	183-6843-69	50V0.68μF
C802	182-4763-39	16V47μF
C803	182-1063-39	16V10μF
C804	182-4763-19	6.3V47μF
C805	182-4763-19	6.3V47μF
C806	182-1063-39	16V10μF
C807	182-1063-39	16V10μF
C808	168-1045-56	0.1μF
C809	184-4773-39	16V470μF
C810	183-4756-58	35V4.7μF
C811	168-1045-56	0.1μF
C812	168-1045-56	0.1μF
C813	172-4741-15	0.47μF
C901	178-2242-78	0.22μF
C902	168-1045-56	0.1μF
C903	168-1022-55	1000pF
C904	168-1022-55	1000pF
C905	042-0447-00	16V2200μF
CCT205	050-0140-54	1kΩX4
CCT206	050-0140-54	1kΩX4
D701	001-2015-00	RL253
D702	001-0626-91	1A2
D703	001-0347-34	MA4062L
D704	001-0626-91	1A2
D802	001-0347-48	MA4091H
D803	001-0516-90	MA111
D804	001-0504-31	HZS6A2L
D806	001-0504-31	HZS6A2L
D808	001-0504-45	HZS9B1L
D810	001-0347-48	MA4091H
IC201	052-1173-00	μPD178076GF-541-3BA
IC301	051-3034-90	NJM4558V
IC302	051-5024-10	LC75386YWHS-R
IC501	051-3019-90	NJM2060V
IC503	051-3019-90	NJM2060V(H-A,H-C)
IC504	051-3019-90	NJM2060V
IC505	051-3019-90	NJM2060V
IC506	051-2037-00	TDA7560
J201	074-1191-26	26P

REF No.	PART No.	DESCRIPTION
J302	074-0850-08	8P
J701	074-1068-11	16P
L104	010-2003-04	COIL
L202	010-6009-64	2.2μH
L701	009-0680-00	CHOKE
L701	009-0680-60	CHOKE
P701	076-0540-14	14P
Q104	198-0669-00	2SK669
Q106	190-1150-00	2SA1150
Q107	125-2004-92	RN1402
Q108	190-1150-00	2SA1150
Q304	125-2004-92	RN1402
Q305	125-9003-92	IMD3
Q701	192-2712-00	2SC2712
Q801	193-2118-00	2SD2118
Q802	125-2004-92	RN1402
Q803	190-1150-00	2SA1150
Q804	125-2004-92	RN1402
Q805	125-0002-92	RN2402
Q806	193-1858-00	2SD1858
Q811	193-2118-00	2SD2118
Q812	125-9003-92	IMD3
Q813	103-2012-00	2SD2012
Q814	125-2004-92	RN1402
Q816	193-2118-00	2SD2118
Q817	193-1306-00	2SD1306
Q818	192-2712-00	2SC2712
R111	119-1221-15	1/16W 1.2kΩ
R112	119-4721-15	1/16W 4.7kΩ
R113	119-1821-15	1/16W 1.8kΩ
R114	111-2701-98	1/4WS 27Ω
R115	119-2221-15	1/16W 2.2kΩ
R116	111-1501-98	1/4WS 15Ω
R117	119-4721-15	1/16W 4.7kΩ
R118	119-4741-15	1/16W 470kΩ
R119	111-1001-98	1/4WS 10Ω
R120	111-2221-98	1/4WS 2.2kΩ
R121	111-1031-98	1/4WS 10kΩ
R122	119-1021-15	1/16W 1kΩ
R123	111-1031-98	1/4WS 10kΩ
R124	111-2221-98	1/4WS 2.2kΩ
R198	119-0000-05	1/16W 0Ω
R199	119-0000-05	1/16W 0Ω
R204	119-4731-15	1/16W 47kΩ
R206	119-4731-15	1/16W 47kΩ
R207	119-4731-15	1/16W 47kΩ
R208	119-4731-15	1/16W 47kΩ
R209	119-1041-15	1/16W 100kΩ
R210	119-1041-15	1/16W 100kΩ
R211	119-1031-15	1/16W 10kΩ(H-A,H-B)
R212	119-1031-15	1/16W 10kΩ(H-C)
R213	119-1031-15	1/16W 10kΩ(H-B,H-C)
R214	119-2231-15	1/16W 22kΩ
R215	119-1031-15	1/16W 10kΩ(H-A)
R221	119-1031-15	1/16W 10kΩ
R222	119-4731-15	1/16W 47kΩ
R223	119-1031-15	1/16W 10kΩ
R224	119-1021-15	1/16W 1kΩ
R225	119-1031-15	1/16W 10kΩ
R226	119-1021-15	1/16W 1kΩ
R227	119-4731-15	1/16W 47kΩ
R228	119-3311-15	1/16W 330Ω
R229	119-3311-15	1/16W 330Ω
R230	119-1021-15	1/16W 1kΩ
R231	119-1021-15	1/16W 1kΩ
R232	119-4731-15	1/16W 47kΩ
R233	119-4731-15	1/16W 47kΩ
R234	119-1031-15	1/16W 10kΩ
R236	119-4731-15	1/16W 47kΩ
R237	119-1031-15	1/16W 10kΩ(H-A,H-C)
R238	119-1031-15	1/16W 10kΩ(H-B)

REF No.	PART No.	DESCRIPTION
R245	119-1031-15	1/16W 10kΩ
R246	119-1031-15	1/16W 10kΩ
R301	119-1021-15	1/16W 1kΩ
R302	119-1021-15	1/16W 1kΩ
R308	119-4731-15	1/16W 47kΩ
R310	119-4731-15	1/16W 47kΩ
R315	119-4731-15	1/16W 47kΩ
R316	032-0106-64	1/10W 56kΩ±0.5%
R317	119-3011-15	1/16W 300Ω
R318	032-0106-64	1/10W 56kΩ±0.5%
R319	111-8211-98	1/4WS 820Ω
R320	111-8211-98	1/4WS 820Ω
R323	032-0106-64	1/10W 56kΩ±0.5%
R324	119-3011-15	1/16W 300Ω
R325	032-0106-64	1/10W 56kΩ±0.5%
R334	119-4721-15	1/16W 4.7kΩ
R335	119-4721-15	1/16W 4.7kΩ
R338	119-4741-15	1/16W 470kΩ
R339	119-4731-15	1/16W 47kΩ
R501	119-3331-15	1/16W 33kΩ
R502	119-3331-15	1/16W 33kΩ
R503	119-3331-15	1/16W 33kΩ
R504	119-3331-15	1/16W 33kΩ
R505	119-2231-15	1/16W 22kΩ(H-A)
R505	119-1031-15	1/16W 10kΩ(H-B,H-C)
R506	119-1031-15	1/16W 10kΩ(H-A,H-C)
R506	119-1631-15	1/16W 16kΩ(H-B)
R507	119-2231-15	1/16W 22kΩ(H-A)
R507	119-1031-15	1/16W 10kΩ(H-B,H-C)
R508	119-1031-15	1/16W 10kΩ(H-A,H-C)
R508	119-1631-15	1/16W 16kΩ(H-B)
R510	119-1631-15	1/16W 16kΩ(H-B)
R512	119-1631-15	1/16W 16kΩ(H-A,H-B)
R513	119-4721-15	1/16W 4.7kΩ
R514	119-1031-15	1/16W 10kΩ
R515	119-1031-15	1/16W 10kΩ
R516	119-4721-15	1/16W 4.7kΩ
R517	119-1231-15	1/16W 12kΩ(H-A)
R518	119-1231-15	1/16W 22kΩ(H-C)
R519	119-1231-15	1/16W 22kΩ(H-C)
R520	119-1231-15	1/16W 12kΩ(H-A)
R521	119-4721-15	1/16W 4.7kΩ
R522	119-4721-15	1/16W 4.7kΩ
R523	119-1031-15	1/16W 10kΩ
R524	119-1031-15	1/16W 10kΩ
R525	119-2221-15	1/16W 2.2kΩ
R528	119-2221-15	1/16W 2.2kΩ
R529	119-2221-15	1/16W 2.2kΩ
R532	119-2221-15	1/16W 2.2kΩ
R549	119-4721-15	1/16W 4.7kΩ(H-C)
R550	119-3921-15	1/16W 3.9kΩ(H-A)
R550	119-3021-15	1/16W 3kΩ(H-C)
R552	119-2021-15	1/16W 2kΩ(H-B)
R552	119-3021-15	1/16W 3kΩ(H-C)
R553	119-1511-15	1/16W 150Ω(H-C)
R554	119-1511-15	1/16W 150Ω(H-A,H-C)
R555	119-1511-15	1/16W 150Ω(H-B,H-C)
R556	119-1511-15	1/16W 150Ω(H-B,H-C)
R557	119-1541-15	1/16W 150kΩ(H-A,H-C)
R558	119-1541-15	1/16W 150kΩ(H-A,H-C)
R559	119-1541-15	1/16W 150kΩ
R560	119-1541-15	1/16W 150kΩ
R561	119-1541-15	1/16W 150kΩ(H-A,H-C)

REF No.	PART No.	DESCRIPTION
R562	119-1541-15	1/16W 150kΩ(H-A,H-C)
R563	119-1541-15	1/16W 150kΩ
R564	119-1541-15	1/16W 150kΩ
R565	119-1511-15	1/16W 150Ω(H-A,H-C)
R566	119-1511-15	1/16W 150Ω(H-A,H-C)
R567	119-1511-15	1/16W 150Ω
R568	119-1511-15	1/16W 150Ω
R569	119-3021-15	1/16W 3kΩ(H-A)
R569	119-3921-15	1/16W 3.9kΩ(H-C)
R570	119-1821-15	1/16W 1.8kΩ(H-A)
R570	119-3021-15	1/16W 3kΩ(H-C)
R571	119-1521-15	1/16W 1.5kΩ(H-A)
R571	119-2721-15	1/16W 2.7kΩ(H-B)
R571	119-1621-15	1/16W 1.6kΩ(H-C)
R572	119-1521-15	1/16W 1.5kΩ(H-A)
R572	119-2721-15	1/16W 2.7kΩ(H-B)
R572	119-1621-15	1/16W 1.6kΩ(H-C)
R573	119-1231-15	1/16W 12kΩ(H-A)
R574	119-1231-15	1/16W 12kΩ(H-B)
R574	119-5131-15	1/16W 51kΩ(H-C)
R575	119-1221-15	1/16W 1.2kΩ(H-A)
R575	119-7521-15	1/16W 7.5kΩ(H-B,H-C)
R576	119-7521-15	1/16W 7.5kΩ(H-A)
R576	119-1221-15	1/16W 1.2kΩ(H-B)
R576	119-1231-15	1/16W 12kΩ(H-C)
R577	119-1031-15	1/16W 10kΩ
R578	119-1031-15	1/16W 10kΩ
R579	119-5131-15	1/16W 51kΩ
R580	119-5131-15	1/16W 51kΩ
R581	119-5131-15	1/16W 51kΩ
R582	119-5131-15	1/16W 51kΩ
R583	119-1031-15	1/16W 10kΩ
R584	119-1031-15	1/16W 10kΩ
R586	119-1221-15	1/16W 1.2kΩ(H-A)
R586	119-7521-15	1/16W 7.5kΩ(H-B,H-C)
R587	119-7521-15	1/16W 7.5kΩ(H-A)
R587	119-1221-15	1/16W 1.2kΩ(H-B)
R587	119-1231-15	1/16W 12kΩ(H-C)
R588	119-1231-15	1/16W 12kΩ(H-A)
R589	119-1631-15	1/16W 16kΩ(H-B)
R589	119-5131-15	1/16W 51kΩ(H-C)
R590	119-1031-15	1/16W 10kΩ
R591	119-1031-15	1/16W 10kΩ
R592	119-1031-15	1/16W 10kΩ
R593	119-1031-15	1/16W 10kΩ
R594	119-1031-15	1/16W 10kΩ
R595	119-3331-15	1/16W 33kΩ(H-A)
R595	119-1041-15	1/16W 100kΩ(H-B,H-C)
R596	119-3331-15	1/16W 33kΩ(H-A)
R596	119-1041-15	1/16W 100kΩ(H-B,H-C)
R597	119-3331-15	1/16W 33kΩ(H-A)
R597	119-1041-15	1/16W 100kΩ(H-B)
R597	119-2231-15	1/16W 22kΩ(H-C)
R598	119-3331-15	1/16W 33kΩ(H-A)
R598	119-1041-15	1/16W 100kΩ(H-B)
R598	119-2231-15	1/16W 22kΩ(H-C)
R602	119-3941-15	1/16W 390kΩ
R603	119-3941-15	1/16W 390kΩ
R604	119-2231-15	1/16W 22kΩ
R605	119-2231-15	1/16W 22kΩ
R606	119-2231-15	1/16W 22kΩ
R607	119-2231-15	1/16W 22kΩ
R611	119-4731-15	1/16W 47kΩ
R612	119-1031-15	1/16W 10kΩ
R701	119-1031-15	1/16W 10kΩ
R702	119-5611-15	1/16W 560Ω
R703	111-1531-98	1/4WS 15kΩ

REF No.	PART No.	DESCRIPTION
R704	111-2291-11	1W 2.2Ω
R803	111-4711-98	1/4WS 470Ω
R804	111-1021-98	1/4WS 1kΩ
R805	119-2231-15	1/16W 22kΩ
R806	119-4741-15	1/16W 470kΩ
R807	119-2231-15	1/16W 22kΩ
R814	111-2211-98	1/4WS 220Ω
R815	119-1041-15	1/16W 100kΩ
R818	111-3911-98	1/4WS 390Ω

REF No.	PART No.	DESCRIPTION
R819	119-1041-15	1/16W 100kΩ
R821	111-2021-98	1/4WS 2kΩ
R822	111-2021-98	1/4WS 2kΩ
R825	111-1001-98	1/4WS 10Ω
R826	119-5611-15	1/16W 560Ω
R827	119-4721-15	1/16W 4.7kΩ
R828	111-1831-98	1/4WS 18kΩ
R829	111-1001-98	1/4WS 10Ω
R901	119-1021-15	1/16W 1kΩ

REF No.	PART No.	DESCRIPTION
R908	119-8201-15	1/16W 82Ω
R910	111-3911-98	1/4WS 390Ω
R912	119-1021-15	1/16W 1kΩ
R913	119-1021-15	1/16W 1kΩ
SUP101	060-0122-10	DSP-201M
TC201	004-1580-02	TRIMMER
VR102	012-5203-56	10kΩ
X201	061-3055-00	4.5MHz

Switch PWB(B2) section

REF No.	PART No.	DESCRIPTION
C901	168-1045-56	0.1μF
C902	168-1045-56	0.1μF
C903	168-6812-55	680pF
C904	168-1045-56	0.1μF
C905	042-0423-92	6.3V4.7μF
D901	001-0516-90	MA111
D902	001-0516-90	MA111
D903	001-0516-90	MA111
D904	001-0516-90	MA111
D905	001-0516-90	MA111
D906	001-0516-90	MA111
D907	001-0516-90	MA111
D908	001-0516-90	MA111

REF No.	PART No.	DESCRIPTION
IC901	051-6000-20	LC75853NW
J901	074-1151-14	14P
PL901	017-0447-59	8V105mA
PL902	017-0447-59	8V105mA
PL903	017-0433-52	14V40mA
PL904	017-0433-52	14V40mA
PL905	017-0433-52	14V40mA
PL906	017-0433-52	14V40mA
PL907	017-0433-52	14V40mA
R902	119-6831-15	1/16W 68kΩ
S901	013-6305-50	SKQMAH
S902	013-6305-50	SKQMAH
S903	013-6305-50	SKQMAH

REF No.	PART No.	DESCRIPTION
S904	013-6305-50	SKQMAH
S905	013-6305-50	SKQMAH
S906	013-6305-50	SKQMAH
S907	013-6305-50	SKQMAH
S908	013-6305-50	SKQMAH
S909	013-6305-50	SKQMAH
S910	013-6305-50	SKQMAH
S911	013-6305-50	SKQMAH
S912	013-6305-50	SKQMAH
S913	013-6305-50	SKQMAH
S915	013-6305-50	SKQMAH
VR903	016-0013-03	ROTARY ENCODER

CD PWB section(B3):CD mechanism

REF No.	PART No.	DESCRIPTION
C101	168-1042-78	0.1μF
C102	045-4701-50	47pF
C103	046-4722-58	4700pF
C104	168-1042-78	0.1μF
C105	046-1532-78	0.015μF
C106	046-1032-78	0.01μF
C107	046-1032-78	0.01μF
C108	046-4722-58	4700pF
C109	046-1522-58	1500pF
C110	046-3332-78	0.033μF
C111	168-1042-78	0.1μF
C112	046-3332-78	0.033μF
C113	168-1042-78	0.1μF
C114	168-1042-78	0.1μF
C115	046-4712-58	470pF
C116	046-4712-58	470pF
C117	043-0533-50	0.047μF
C118	043-0533-50	0.047μF
C119	045-2701-50	27pF
C120	045-1801-50	18pF
C121	163-1063-35	16V10μF
C122	178-1052-78	1μF
C123	046-1032-78	0.01μF
C124	163-1073-05	4V100μF
C125	168-1042-78	0.1μF
C126	168-1042-78	0.1μF
C129	178-1052-78	1μF
C201	163-3363-05	4V33μF
C202	168-1042-78	0.1μF
C203	178-1052-78	1μF
C204	163-1073-05	4V100μF
C205	163-3363-05	4V33μF
C206	168-1042-78	0.1μF

REF No.	PART No.	DESCRIPTION
C207	043-0533-50	0.047μF
C208	046-6822-58	6800pF
C209	168-1042-78	0.1μF
C210	043-0533-50	0.047μF
C211	168-1042-78	0.1μF
C212	168-1042-78	0.1μF
C213	045-5096-50	5pF
C214	045-5601-50	56pF
C215	043-0533-50	0.047μF
C216	178-1052-78	1μF
C217	045-1011-50	100pF
C301	163-1073-35	16V100μF
C302	168-1042-78	0.1μF
C303	043-0533-50	0.047μF
D201	001-0516-90	MA111
IC101	051-6376-00	TC94A14FA
IC102	051-3279-90	BA033LBSG
IC201	051-5710-90	TA2157F
IC301	051-6049-08	BA5983FP-E2
J101	074-1228-76	26P
J201	074-1138-65	15P
J301	074-1138-60	10P
L101	010-2285-57	BLM21B102SPT
L102	010-2285-57	BLM21B102SPT
L103	010-2285-57	BLM21B102SPT
L104	010-2285-57	BLM21B102SPT
L105	010-2285-57	BLM21B102SPT
L401	010-3050-93	10μH
Q201	131-1188-50	2SB1188
R102	033-5621-15	1/16W 5.6kΩ
R104	033-4731-15	1/16W 47kΩ
R105	033-1041-15	1/16W 100kΩ
R108	033-1531-15	1/16W 15kΩ

REF No.	PART No.	DESCRIPTION
R109	033-1031-15	1/16W 10kΩ
R110	033-1051-15	1/16W 1MΩ
R111	033-3321-15	1/16W 3.3kΩ
R114	033-2211-15	1/16W 220Ω
R115	033-2211-15	1/16W 220Ω
R116	033-1031-15	1/16W 10kΩ
R117	033-1021-15	1/16W 1kΩ
R131	033-4711-15	1/16W 470Ω
R132	033-2211-15	1/16W 220Ω
R201	117-2201-15	1/10W 22Ω
R202	117-2201-15	1/10W 22Ω
R203	033-1041-15	1/16W 100kΩ
R204	033-1041-15	1/16W 100kΩ
R205	033-1041-15	1/16W 100kΩ
R206	033-1041-15	1/16W 100kΩ
R207	033-1041-15	1/16W 100kΩ
R208	033-8231-15	1/16W 82kΩ
R209	033-6811-15	1/16W 680Ω
R210	033-6831-15	1/16W 68kΩ
R211	033-1831-15	1/16W 18kΩ
R212	033-2721-15	1/16W 2.7kΩ
R213	033-1011-15	1/16W 100Ω
R214	033-1021-15	1/16W 1kΩ
R215	033-1031-15	1/16W 10kΩ
R217	033-1041-15	1/16W 100kΩ
R218	033-2211-15	1/16W 220Ω
R301	117-6811-15	1/16W 680Ω
R304	033-3921-15	1/16W 3.9kΩ
R305	033-3921-15	1/16W 3.9kΩ
R306	033-1041-15	1/16W 100kΩ
R307	033-2211-15	1/16W 220Ω
X102	060-1528-90	16.934M

LED PWB section(B4):CD mechanism

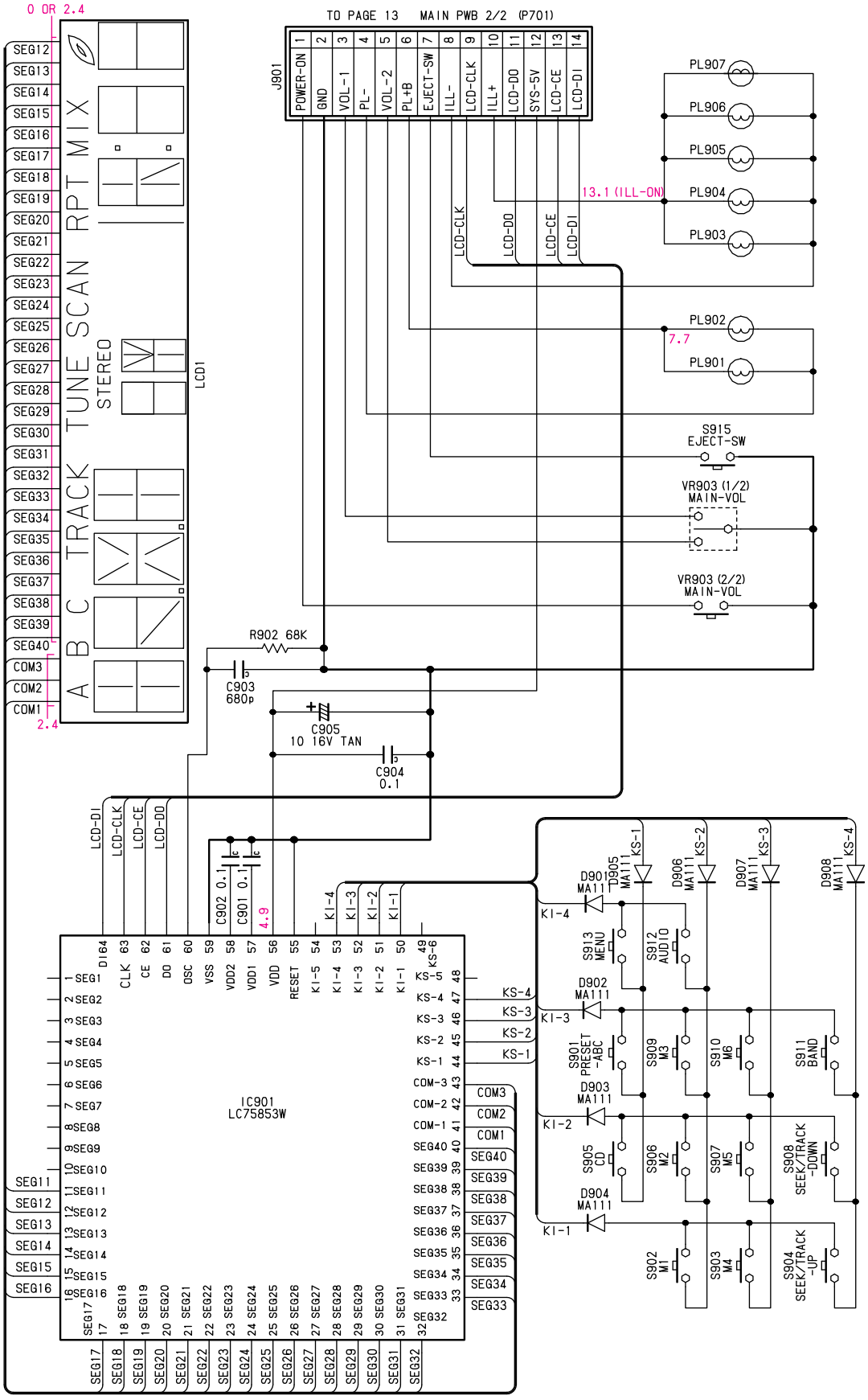
REF No.	PART No.	DESCRIPTION
D1	001-7058-90	AN1105W-RR
D2	001-7058-90	AN1105W-RR
J1	074-1138-60	10P

REF No.	PART No.	DESCRIPTION
Q1	060-4015-90	PS1192H
Q2	060-4015-90	PS1192H
S1	013-7414-50	CHUCKING

REF No.	PART No.	DESCRIPTION
S2	013-7413-50	LIMIT

■ CIRCUIT DIAGRAM

Switch PWB(B2) section



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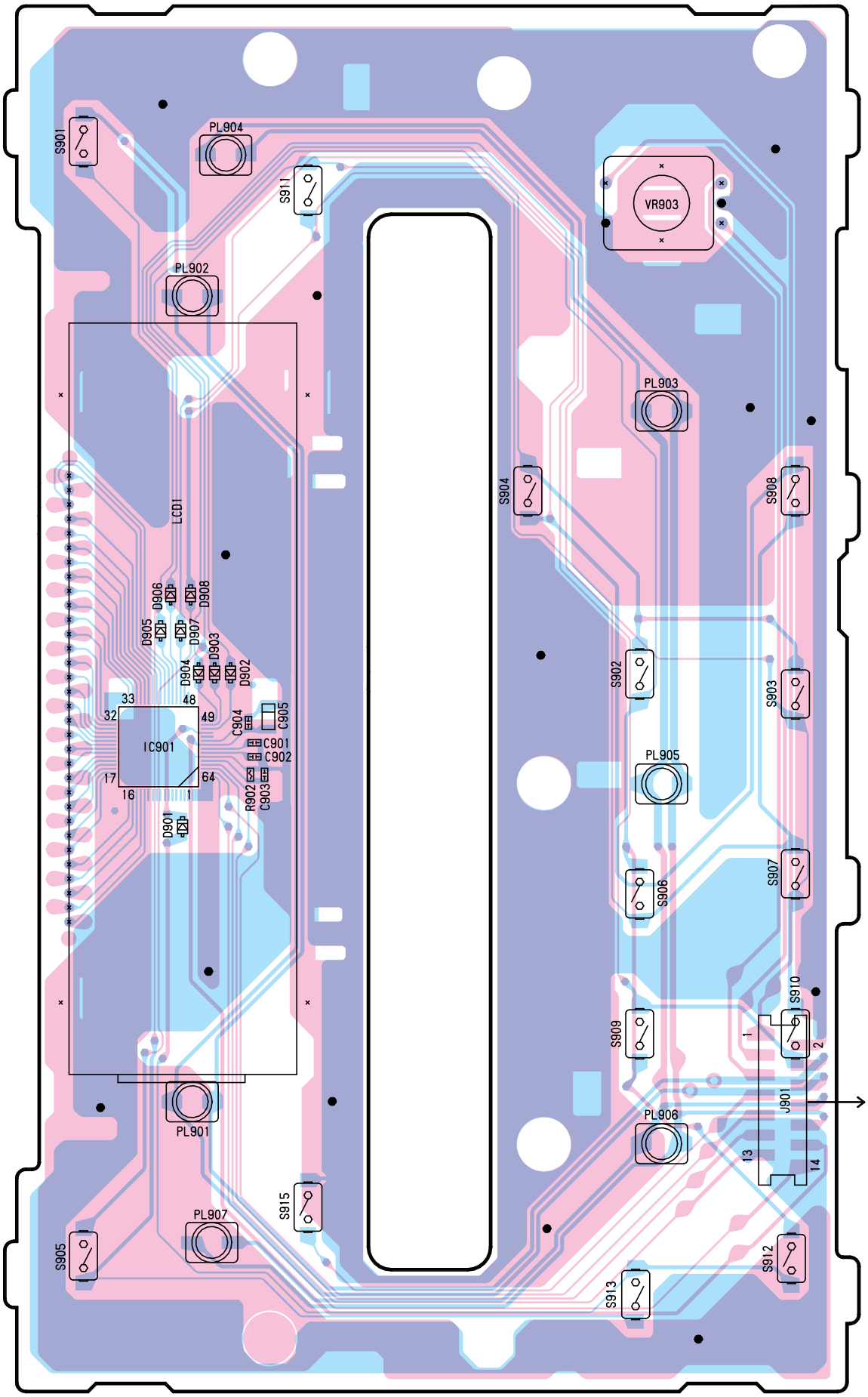
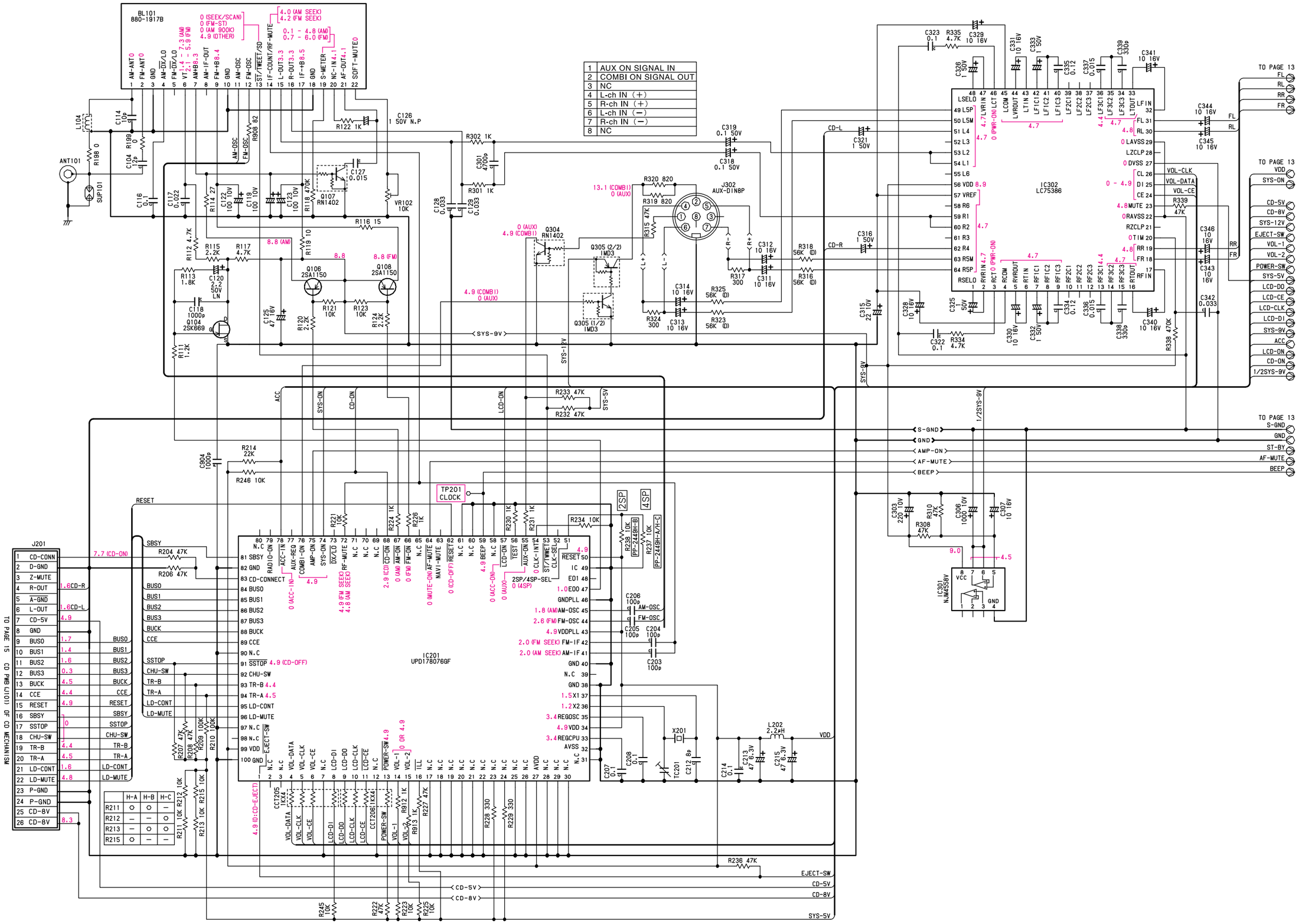
■ PRINTED WIRING BOARD

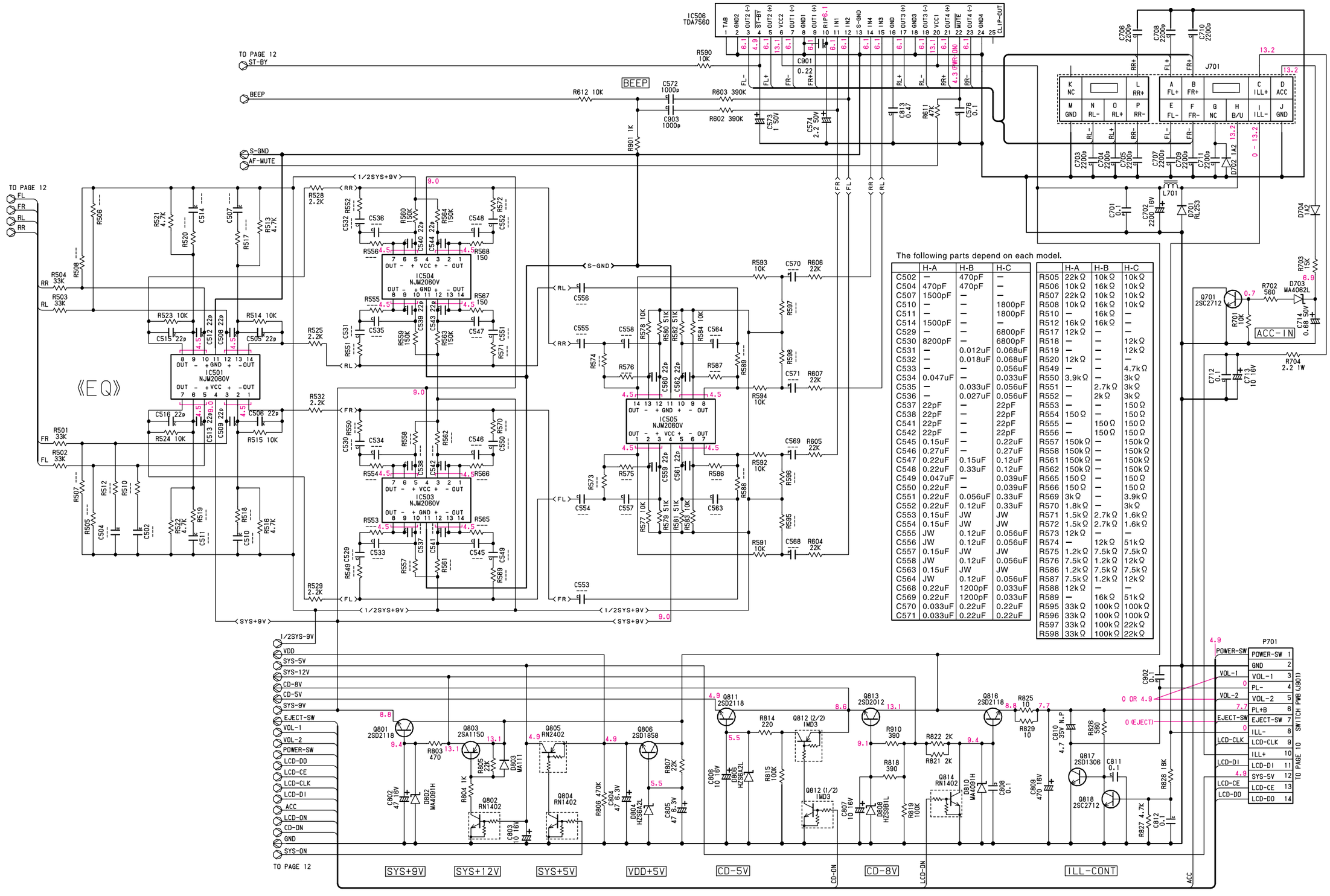
Switch PWB(B2) section



■ CIRCUIT DIAGRAM

Main PWB(B1) section 1/2





	H-A	H-B	H-C
C502	—	470pF	—
C504	470pF	470pF	—
C507	1500pF	—	—
C510	—	—	1800pF
C511	—	—	1800pF
C514	1500pF	—	—
C529	—	—	6800pF
C530	8200pF	—	6800pF
C531	—	0.012uF	0.068uF
C532	—	0.018uF	0.068uF
C533	—	—	0.056uF
C534	0.047uF	—	0.033uF
C535	—	0.033uF	0.056uF
C536	—	0.027uF	0.056uF
C537	22pF	—	22pF
C538	22pF	—	22pF
C541	22pF	—	22pF
C542	22pF	—	22pF
C545	0.15uF	—	0.22uF
C546	0.27uF	—	0.27uF
C547	0.22uF	0.15uF	0.12uF
C548	0.22uF	0.33uF	0.12uF
C549	0.047uF	—	0.039uF
C550	0.22uF	—	0.039uF
C551	0.22uF	0.056uF	0.33uF
C552	0.22uF	0.12uF	0.33uF
C553	0.15uF	JW	JW
C554	0.15uF	JW	JW
C555	JW	0.12uF	0.056uF
C556	JW	0.12uF	0.056uF
C557	0.15uF	JW	JW
C558	JW	0.12uF	0.056uF
C563	0.15uF	JW	JW
C564	JW	0.12uF	0.056uF
C568	0.22uF	1200pF	0.033uF
C569	0.22uF	1200pF	0.033uF
C570	0.033uF	0.22uF	0.22uF
C571	0.033uF	0.22uF	0.22uF

	H-A	H-B	H-C
R505	22kΩ	10kΩ	10kΩ
R506	10kΩ	16kΩ	10kΩ
R507	22kΩ	10kΩ	10kΩ
R508	10kΩ	16kΩ	10kΩ
R510	—	16kΩ	—
R512	16kΩ	16kΩ	—
R517	12kΩ	—	—
R518	—	—	12kΩ
R519	—	—	12kΩ
R520	12kΩ	—	—
R549	—	—	4.7kΩ
R550	3.9kΩ	—	3kΩ
R551	—	2.7kΩ	3kΩ
R552	—	2kΩ	3kΩ
R553	—	—	150Ω
R554	150Ω	—	150Ω
R555	—	150Ω	150Ω
R556	—	150Ω	150Ω
R557	150kΩ	—	150kΩ
R558	150kΩ	—	150kΩ
R561	150kΩ	—	150kΩ
R562	150kΩ	—	150kΩ
R565	150Ω	—	150Ω
R566	150Ω	—	150Ω
R569	3kΩ	—	3.9kΩ
R570	1.8kΩ	—	3kΩ
R571	1.5kΩ	2.7kΩ	1.6kΩ
R572	1.5kΩ	2.7kΩ	1.6kΩ
R573	12kΩ	—	—
R574	—	12kΩ	51kΩ
R575	1.2kΩ	7.5kΩ	7.5kΩ
R576	7.5kΩ	1.2kΩ	12kΩ
R586	1.2kΩ	7.5kΩ	7.5kΩ
R587	7.5kΩ	1.2kΩ	12kΩ
R588	12kΩ	—	—
R589	—	16kΩ	51kΩ
R595	33kΩ	100kΩ	100kΩ
R596	33kΩ	100kΩ	100kΩ
R597	33kΩ	100kΩ	22kΩ
R598	33kΩ	100kΩ	22kΩ

■ PRINTED WIRING BOARD

Main PWB(B1) section

K	NC
L	REAR RIGHT SP (+)
M	GND
N	REAR LEFT SP (−)
O	REAR LEFT SP (+)
P	REAR RIGHT SP (−)

A	FRONT LEFT SP (+)
B	FRONT RIGHT SP (+)
C	ILLUMINATION
D	ACC
E	FRONT LEFT SP (−)
F	FRONT RIGHT SP (−)
G	NC
H	BACK UP
I	ILL. CONTROL
J	GND

1	AUX ON SIGNAL IN
2	COMBI ON SIGNAL OUT
3	NC
4	L-ch IN (+)
5	R-ch IN (+)
6	L-ch IN (−)
7	R-ch IN (−)
8	NC

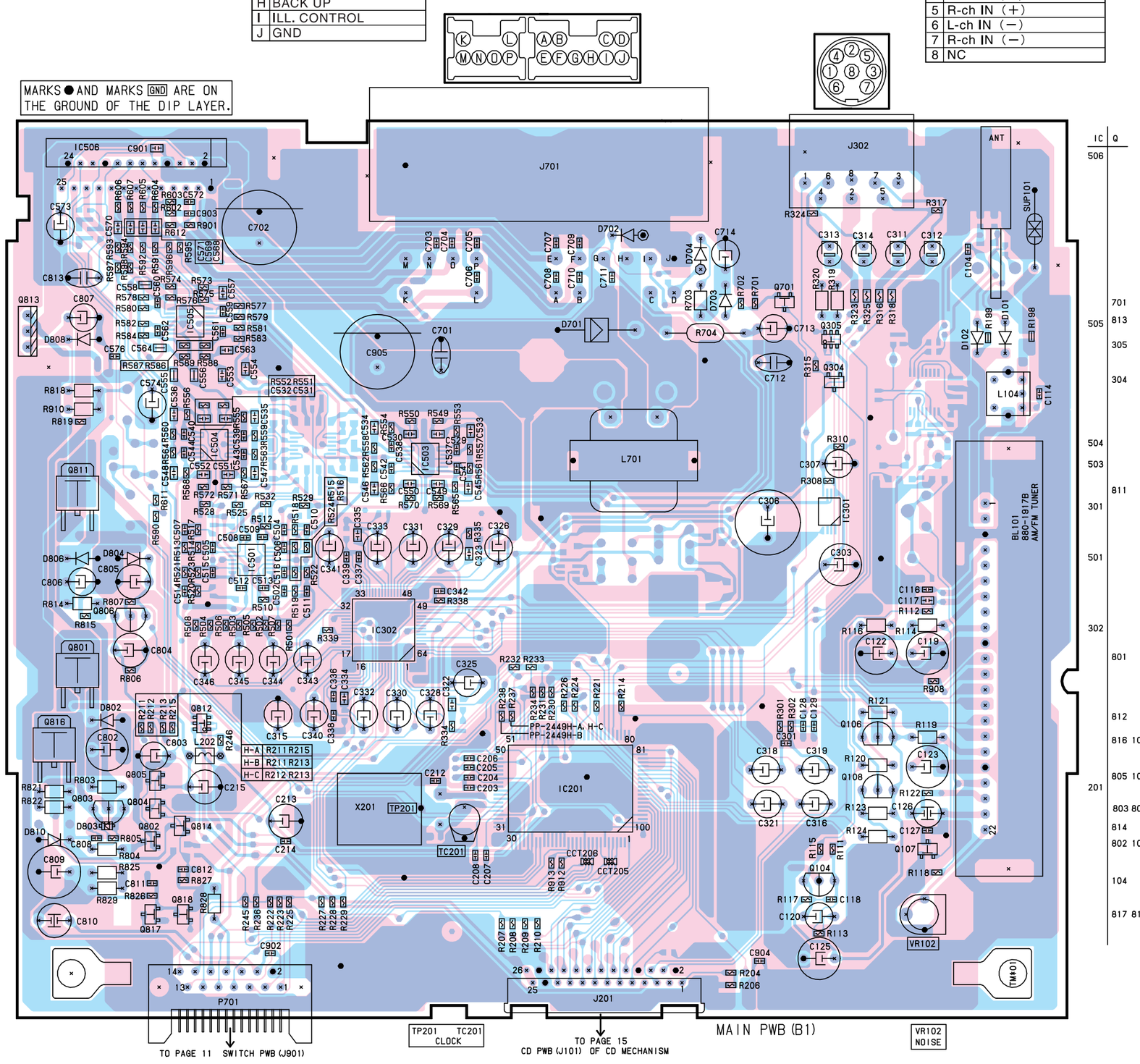
The following parts depend on each model.

	H-A	H-B	H-C
C502	—	○	—
C504	○	○	—
C507	○	—	—
C510	—	—	○
C511	—	—	○
C514	○	—	—
C529	—	—	○
C530	○	—	○
C531	—	○	○
C532	—	○	○
C533	—	—	○
C534	○	—	○
C535	—	○	○
C536	—	○	○
C537	○	—	○
C538	○	—	○
C541	○	—	○
C542	○	—	○
C545	○	—	○
C546	○	—	○
C547	○	○	○
C548	○	○	○
C549	○	—	○
C550	○	—	○
C551	○	○	○
C552	○	○	○
C553	○	○(JW)	○(JW)
C554	○	○(JW)	○(JW)
C555	○(JW)	○	○
C556	○(JW)	○	○
C557	○	○(JW)	○(JW)
C558	○(JW)	○	○
C563	○	○(JW)	○(JW)
C564	○(JW)	○	○
C568	○	○	○
C569	○	○	○
C570	○	○	○
C571	○	○	○
IC503	○	—	○

	H-A	H-B	H-C
R505	○	○	○
R506	○	○	○
R507	○	○	○
R508	○	○	○
R510	—	○	—
R512	○	○	—
R517	○	—	—
R518	—	—	○
R519	—	—	○
R520	○	—	—
R549	—	—	○
R550	○	—	○
R551	—	○	○
R552	—	○	○
R553	—	—	○
R554	○	—	○
R555	—	○	○
R556	—	○	○
R557	○	—	○
R558	○	—	○
R561	○	—	○
R562	○	—	○
R565	○	—	○
R566	○	—	○
R569	○	—	○
R570	○	—	○
R571	○	○	○
R572	○	○	○
R573	○	—	—
R574	—	○	○
R575	○	○	○
R576	○	○	○
R586	○	○	○
R587	○	○	○
R588	○	—	—
R589	—	○	○
R595	○	○	○
R596	○	○	○
R597	○	○	○
R598	○	○	○

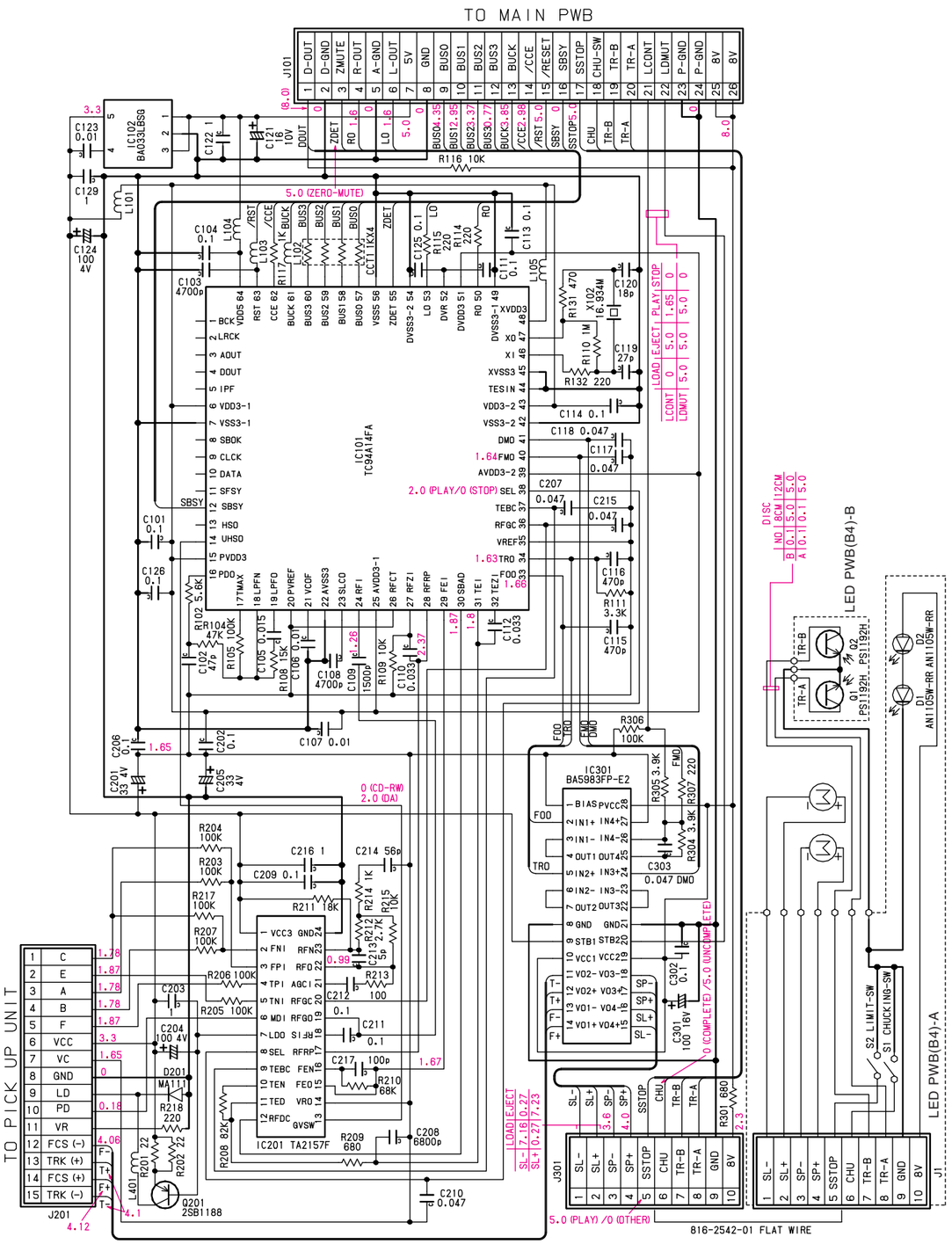
H-A(PP-2449H-A)/H-B(PP-2449H-B)/H-C(PP-2449H-C)

MARKS ● AND MARKS GND ARE ON THE GROUND OF THE DIP LAYER.



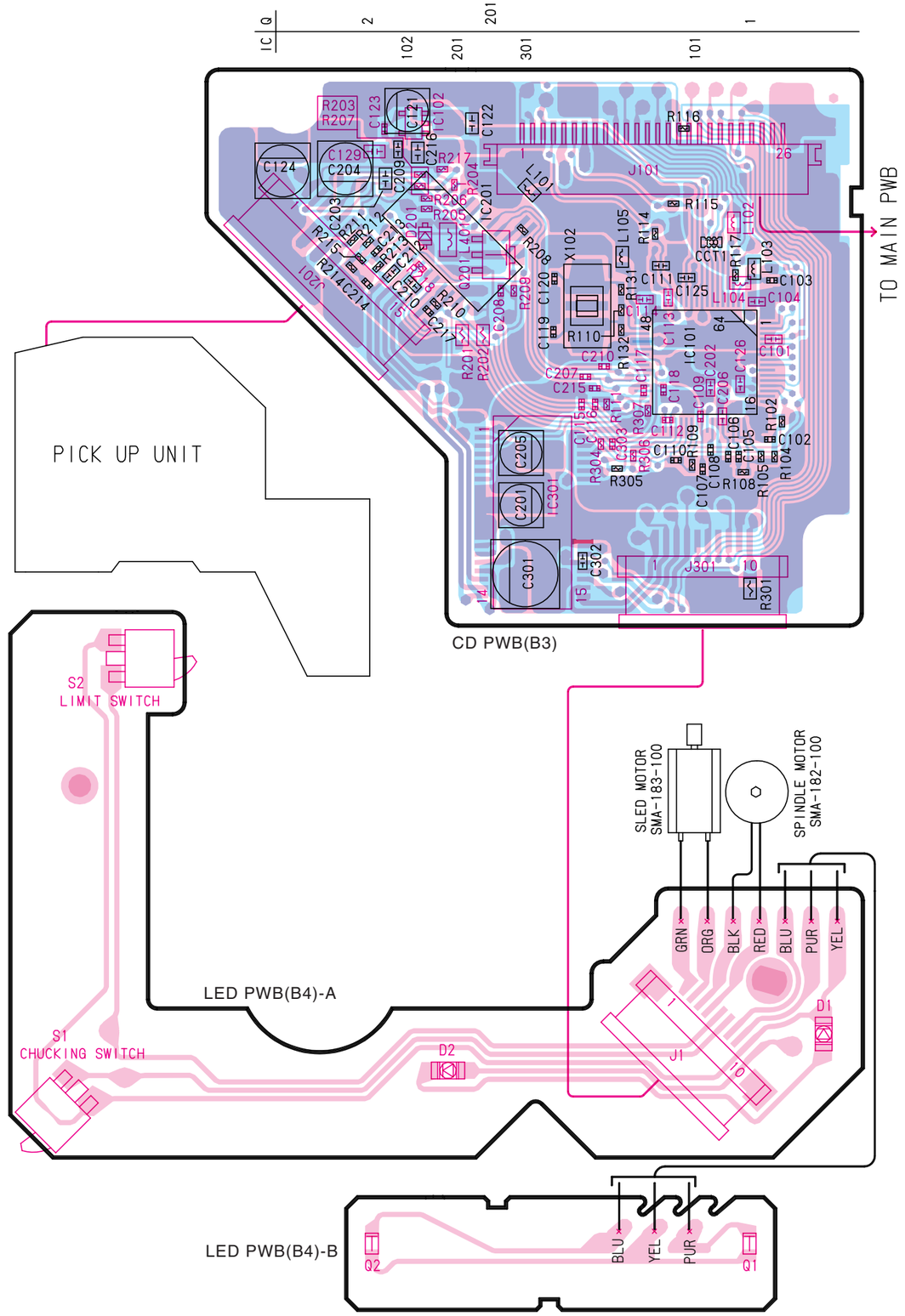
■ CIRCUIT DIAGRAM

CD PWB(B3)/LED PWB(B4) section



■ PRINTED WIRING BOARD

CD PWB(B3)/LED PWB(B4) section



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